

REMARKS

Claims 11-21 were pending in the application. Claims 22-24 are now added to more fully claim inventive subject matter. In the outstanding office action all of the claims 11-21 were rejected under Section 103. Claims 11-17 and 19-21 were rejected over Hickey (4,974,633) in view of Olsen (WO 02/064422A1), and claims 11, 17 and 18 were rejected over Hickey in view of Wobben (6,729,846). Reconsideration is requested in view of the above amendment to the claims and the remarks which now follow.

The rejections are, at least in part, premised on the Hickey reference disclosing

“recesses to improve flow ...approximately in the region between the transition point between laminar and turbulent flow and the final edge of the rotor blade”

wherein

“the shape and configuration of the recesses are designed such that as the air sweeps past the recess, an eddy forms in the recess that assists the passage of the air and accelerates the air volume.”

None of the disclosure in the Hickey reference appears to recite these features with respect to a rotor blade or any other wind power unit component. The recitation applying the Hickey reference does not cite any passages in support of these contentions and it is submitted that the substantive disclosure required to reject independent claim 11 is lacking. In fact, the reference discloses otherwise. See the passage at col. 1, lines 25-29 which states that in the prior art “spaced surface deviations [are placed] over the **entire surface** of an object that contacts the fluid medium [Emphasis Added].”

Moreover, the office action describes the Hickey reference as disclosing hemispherical recesses that are arranged regularly, as required by claim 13 (now cancelled). Actually, at best, the Hickey reference only alludes to the prior art as “placing uniformly shaped, sized and spaced surface deviations over the entire surface of an object that contacts the fluid medium.” See, again, col. 1, lines 25-29. The Hickey reference, on the other hand, also teaches away from such uniformly spaced surface deviations. This is confirmed by all of the figures 1 – 7 of the reference. Thus, even if it were appropriate to characterize the various depressions or indentations shown in this reference as “hemispheres” none of these illustrated features are

disclosed or illustrated as uniformly spaced. See, for example, col. 2, lines 34-54 which alludes to numerous deviation patterns and radiating projection sets. None of the depressions or indentations disclosed by Hickey are disclosed as hemispheres. Applicant, on the other hand teaches at par [0038] of the published application "that each recess 1 is essentially the same distance from all adjacent recesses." The distinguishing features of

"recesses each having the shape of a hemisphere or each having the shape of a half tear-drop, each recess positioned the same distance from all adjacent recesses"

are now presented in independent claim 11.

The rejection further relies upon Olsen for teaching a plurality of offset rows of teardrop shaped recesses, but the cited passage (page 4, lines 13-15) does not disclose "each recess positioned the same distance from all adjacent recesses" as now required in claim 11. Moreover, the application of Olsen for disclosing reduction in susceptibility to dirt and ice seems appears strained since the reference is in the context of water flow below the waterline of a ship. It is also submitted that the Olsen reference does not suggest the geometry of a half tear-drop.

The application of the Olsen reference for disclosing a tear-drop shape also appears to be in error because the shapes of Figure 6 are not even tear drops. As stated at page 6, lines 25-26, the wall 61 may be part of a truncated cone or part of a cylinder wall, this confirming that the feature is not a recess but, rather, is elevated. Finally, it is not understood on what basis claim 12 has been rejected, as this claim requires features which are not shown in the prior art. The prior art does not disclose placing the claimed recesses on a mast, gondola, or rotor. For all of these reasons the rejections based on Hickey in view of Olsen are no longer applicable and should be removed.

The rejection of claims 11, 17 and 18 based on Hickey in view of Wobben is deficient for the same reasons noted above with regard to the shortcomings present in the Hickey reference. Further, reliance on Wobben appears incorrect because that reference does not, as stated in the office action, appear concerned with "drag reducing recesses." Rather, the reference concerns use of a shark skin foil for reduction in the generation of noise. See col. 3, lines 22-25.

Claims 22-24 are introduced to define novel and non-obvious subject matter fully supported by the specification. It is respectfully submitted that the prior art does not teach or suggest any of the combinations presented in these new claims. Allowance is therefore

requested.

Conclusion

For all of the above reasons it is submitted that the application is now in condition for allowance.

The Commissioner is hereby authorized to charge any appropriate fees due in connection with this paper, including the fees specified in 37 C.F.R. §§ 1.16 (c), 1.17(a)(1) and 1.20(d), or credit any overpayments to Deposit Account No. 19-2179.

Respectfully submitted,

Dated: 2/14/08

By: 

John P. Musone
Registration No. 44,961
(407) 736-6449

Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, New Jersey 08830